

ALBERT FRADERA SOLA

I consider myself both collaborative and adaptable. I am always eager to tackle new and different projects. I am very enthusiastic to always share and develop my data visualization skills as a means towards better scientific communication. I am an open-minded person and enjoy having great relationships with my colleagues.



EDUCATION

Current
|
2018



PhD Candidate in Quantitative Proteomics

JGU University

📍 Mainz, Germany

- PhD thesis: Computational approaches to quantitative proteomics

2017
|
2016



M.Sc. in Omics Data Analysis

University of Vic

📍 Barcelona, Spain

- Master thesis: Scoring function for finding Lolium Perenne DEGs
- Erasmus + grant fellow

2016
|
2009



B.Sc. in Biochemistry

University of Barcelona

📍 Barcelona, Spain

- Bachelor thesis: NMR studies on alpha-synuclein
- Erasmus + grant fellow



RESEARCH EXPERIENCE

Current
|
2018



PhD Candidate

Institute of Molecular Biology

📍 Mainz, Germany

- PhD candidate with Dr. Falk Butter (F.Butter@imb-mainz.de)
- Publications: 1 first-author paper (in submission), 5 co-author papers

2017



Master Student

Institute of Biological, Environmental and Rural Sciences

📍 Aberystwyth, UK

- MSc student with Dr. Narcis Fernandez-Fuentes (naf4@aber.ac.uk)
- Publications: 1 first-author paper, 1 co-author paper



WET LAB PROJECTS AND RELATED SKILLS



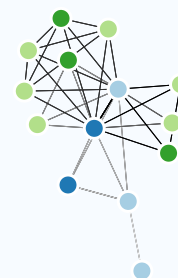
Immunoprecipitation of RNA-binding proteins in *S. cerevisiae*

- I was responsible for designing the experimental setup and generating the data for the RNA-binding protein interactome investigation.
- Keywords: Yeast | Protein Immunoprecipitation | Experimental design



Mass spectrometry quantitative proteomics

- I used chemical labeling (DML) and label-free mass spectrometry sample preparation protocols on several projects
- Keyword: Mass spectrometry | DML | LFQ | In-gel digestion



My CV as an interactive network

Bullet points (Blue, for 🎓 and 🧪, and green, for 📄 and 🗣️) are linked by year. Interactive version [here](#)

CONTACT

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SOFTWARE SKILLS



LANGUAGE SKILLS





DRY LAB PROJECTS AND RELATED SKILLS

- **Network-based assignment of RNA-binding proteins functionality**
 - Function-based networks were created from quantitative proteomics data and made accessible through a shiny app.
 - Keywords: Network | Functional analysis | KEGG | GO | R Shiny
- **Temporal proteome profiling of *Xenopus* and *Leishmania* species**
 - Differential expression of proteomes was investigated at various stages
 - Clustering (Self Organizing Maps) and dimensionality reduction techniques (Principal Component Analysis) were applied.
 - Keywords: Proteome | Differential expression | SOM | PCA | Clustering
- **Scoring function for RNA-Seq differential expression assessment**
 - A scoring function was developed around three RNA-Seq differential expression assessment R packages (DESeq2, edgeR, limma+voom)
 - Keywords: NGS | RNA-Seq | Quality control | Differential expression
- **ChIP-Seq characterization of a novel ATPase in *T. brucei***
 - H2A.Z deposition was investigated and visualized with genome tracks
 - Keywords: NGS | ChIP-Seq | Genome tracks



SELECTED PUBLICATIONS

- **Projects with Genomics Analysis**
 - 2022 | PLoS Pathogens | <https://doi.org/10.1371/journal.ppat.1010514>
 - 2021 | Nature Communications | <https://doi.org/10.1038/s41467-021-22861-2>
 - 2021 | PLoS One | <https://doi.org/10.1371/journal.pone.0249636>
 - 2019 | PLoS One | <https://doi.org/10.1371/journal.pone.0220518>
- **Projects with Proteomics Analysis**
 - 2021 | Journal of Cell Science | <https://doi.org/10.1242/jcs.254300>
 - 2020 | RNA | <https://doi.org/10.1261/rna.076281.120>



CONFERENCES AND COURSES

- **Conferences**
 - 2022 | Statistical data analysis for genome-scale biology |Flash talk
 - 2021 | Network biology |Plenary talk
 - 2019 | FEBS advanced course |Poster presentation
- **Courses**
 - 2022 | Data visualization for scientists
 - 2021 | Scientific writing
 - 2020 | Convincing scientific presentations



Publication abstract's wordcloud

Document created with the R packages [pagedown](#) and [datadrivencv](#).

The source code is available on [github](#).

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